

What is claimed is:

1. A flute tube comprising a metal tube body, wherein the metal tube body is flute-shaped, a plurality of dents, holes, or protrudings is formed on the metal tube body in a predetermined arrangement.
2. The flute tube as claimed in claim 1, wherein the shape of the plurality of dents, holes, or protrudings is circular, rectangle, diamond, pentagram, or quincunx, or irregular.
3. The flute tube as claimed in claim 1, wherein the plurality of dents, holes, or protrudings is arranged in line, in curve, or in a helical line on the metal tube body.
4. The flute tube as claimed in claim 3, wherein the plurality of dents, holes, or protrudings is arranged in two lines, which are respectively on a front surface and a back surface of the metal tube body.
5. The flute tube as claimed in claim 4, wherein the plurality of dents, holes, or protrudings in each line is arranged in equidistance.
6. The flute tube as claimed in claim 5, wherein each dent, hole, or protruding on the back surface of the metal tube body is located at the middle of two corresponding dents, holes, or protrudings on the front surface.
7. The flute tube as claimed in claim 1, wherein a mark is formed on the metal tube body for designing a predetermined distance.
8. A joint structure of a flute tube, comprising:
  - a metal tube body;
  - a liner; and
  - a sleeve; wherein

the metal tube body is flute-shaped, a plurality of dents, holes, or protrudings is formed on the metal tube body in a predetermined arrangement, the liner is sandwiched between the sleeve and the metal tube body for fastening and positioning the sleeve.
9. The joint structure of a flute tube as claimed in claim 8, wherein said liner forms a protruding therein for inserting in said dent or hole on the metal tube body,

or forms a dent or hole for receiving said protruding on the metal tube body.

10. The joint structure of a flute tube as claimed in claim 9, wherein the plurality of dents, holes, or protrudings is arranged in line, in curve, or in a helical line on the metal tube body.

11. The joint structure of a flute tube as claimed in claim 10, wherein the plurality of dents, holes, or protrudings is arranged in two lines which are respectively on a front surface and a back surface of the metal tube body, said liner is composed of two halve, and each half forms a protruding therein.

12. The joint structure of a flute tube as claimed in claim 11, wherein the plurality of dents, holes, or protrudings in each line is arranged in equidistance of  $h$ .

13. The joint structure of a flute tube as claimed in claim 12, wherein each dent, hole or protruding on the back surface of the metal tube body is located at the middle of two corresponding dents, holes, or protrudings on the front surface, one half of said liner forms a protruding, or dent or hole on a middle bottom thereof, the other half forms a protruding, or dent or hole on a middle top thereof, and the distance between the two protrudings is half of the  $h$ .

14. The joint structure of a flute tube as claimed in claim 9, wherein a mark is formed on the metal tube body for designing a predetermined distance.

15. A shelf for depositing goods or clothings, comprising a metal tube body;  
a metal tube body;  
a frame;  
a liner; and  
a sleeve; wherein

the metal tube body is flute-shaped, a plurality of dents, holes, or protrudings is formed on the metal tube body in a predetermined arrangement, the liner is sandwiched between the sleeve and the metal tube body, the frame is fixed on the sleeve, thereby the frame is supported on the metal tube body.

16. The shelf as claimed in claim 15, wherein said liner forms a protruding therein for inserting in said dent or hole on the metal tube body, or forms a dent or

hole for receiving said protruding on the metal tube body.

17. The shelf as claimed in claim 16, wherein the plurality of dents, holes, or protrudings is arranged in line, in curve, or in a helical line on the flute tube.

18. The shelf as claimed in claim 17, wherein the plurality of dents, holes, or protrudings is arranged in two lines which are respectively on a front surface and a back surface of the metal tube body, said liner is composed of two halve, and each half forms a protruding therein.

19. The shelf as claimed in claim 18, wherein the plurality of dents, holes, or protrudings in each line is arranged in equidistance of  $h$ .

20. The shelf as claimed in claim 19, wherein each dent, hole or protruding on the back surface of the metal tube body is located at the middle of two corresponding dents, holes, or protrudings on the front surface, one half of said liner forms a protruding, or dent or hole on a middle bottom thereof, the other half forms a protruding, or dent or hole on a middle top thereof, and the distance between the two protrudings is half of the  $h$ .